Introduction

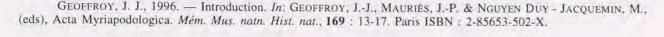
Jean-Jacques GEOFFROY

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Some twenty-seven years ago, a group of zoologists and biologists working on Myriapoda met in Paris (France) for the first time. 1968 was the birth year of international congresses of myriapodology and time when the Centre International de Myriapodologie took form. The creation of the CIM was the work of three people : J. M. DEMANGE (Paris), J. P. MAURIÈS (Paris) and O. KRAUS (Hamburg). Four years later, at Manchester, U.K. (1972), J. G. BLOWER joined the initial trinity as the fourth CIM Father, when organizing the Second International Congress of Myriapodology. These four men are the musketeers of the CIM. Ever since, a new congress has been organized through out the world every three years: Hamburg, Germany, 1975 (O. KRAUS), Gargagno, Italy, 1978 (M. CAMATINI), Radford, USA, 1981 (R. L. HOFFMAN), Amsterdam, The Netherlands, 1984 (C. A. W. JEEKEL), Vittorio Veneto, Italy, 1987 (A. MINELLI) and Innsbruck, Austria, 1990 (E. MEYER & K. THALER).

Some five years ago, according to previous formal sessions of the CIM, it was suggested that France, as first host-country and location of the permanent secretariat, should host the Ninth International Congress of Myriapodology in 1993. This date appeared to be a very significant one, as it saw the 25th anniversary of the CIM (1968-1993) and the bicentenary of the Muséum National d'Histoire Naturelle de Paris (1793-1993). We fully agreed with this idea, and decided to prepare a proposal wich was submitted to the plenary session of the CIM held in Innsbruck, Austria in July 1990. Paris was obviously the most appropriate place in France, due to the souvenir of famous zoologists and myriapodologists, the availibility of convenient facilities, the assistance of laboratories in the Muséum National d'Histoire Naturelle (MNHN), the Centre National de la Recherche Scientifique (CNRS) and the Université Pierre et Marie Curie (UPMC), the touristic interest of the city and the surroundings of the wide Fontainebleau forest...

In accordance with the discussions at Innsbruck, we decided to fix the period of the Congress to the end of July; we also considered the possibility to organize some visits in National Galleries, an exhibition devoted to the activity of scientists durind the French Revolution, and a one-day excursion in various cultural and natural sites in the Fontainebleau area. Besides, we kept in mind to leave the scope of the Congress widely open to several topics, in order to contribute, by lectures and posters, to an up-to-date and more or less comprehensive knowledge about the biology of Diplopoda, Pauropoda, Symphyla, Chilopoda and - as is traditional - Onychophora. Our favorite creatures would appear as models for fundamental and applied biology and the contents of this volume plan to summarize this reality in 8 chapters :





Historical Myriapodology; Advances in Systematics and Biodiversity; Systematics and Evolution: Phylogenetic Relationships; Community Studies and Biogeography; Reproductive Developmental Trends; Physiology, Ecophysiology and Cell Biology; Population Biology, Soil Ecology and Behaviour; Communities in Ecosystems.



FIG. 1. — A logo for the CIM (Centre International de Myriapodologie: Secrétariat Permanent, MNHN Paris, 61 rue Buffon F-75231 Paris Cedex 05, France). Conceiving: GEOFFROY, MAURIÈS & NGUYEN DUY - JACQUEMIN. Drawn by Jacques Rebière (MNHN).

Following the decision of the Centre International de Myriapodologie, an organization committee was soon established in France and through out the world.

Organizers: J. J. GEOFFROY (CNRS, MNHN, Brunoy), J. P. MAURIÈS (MNHN, Paris), M. NGUYEN DUY - JACQUEMIN (CNRS, MNHN, Paris), M. L. CÉLÉRIER (UPMC, Paris).

President of the Congress: J. M. DEMANGE (MNHN, Paris).

Organizing Committee: J. F. DAVID (CNRS, MNHN, Brunoy), M. DESCAMPS (USTL, Lille I), C. JAMAULT-NAVARRO (Université, Amiens), F. SAHLI (MNHN, Paris).

International Scientific Committee: J. ADIS (Plön, Germany), C.S. CRAWFORD (Albuquerque, USA), W. DOHLE (Berlin, Germany), W. DUNGER (Görlitz, Germany), H. ENGHOFF (Copenhagen, Denmark), S. I. GOLOVATCH (Moscow, Russia), W. B. JEDRYCZKOWSKI (Warsawa, Poland), C. A. W. JEEKEL (Amsterdam, The Netherlands), P. M. JOHNS (Christchurch, New-Zealand), O. KRAUS (Hamburg, Germany), J. G. E. LEWIS (Taunton, Somerset, U.K.), B. MEIDELL (Bergen, Norway), A. MINELLI (Padova, Italy), E. MEYER (Innsbruck, Austria), H. RUHBERG (Hamburg, Germany), U. SCHELLER (Järpas, Sweden), W. A. SHEAR (Hampden-Sydney, USA), R. M. SHELLEY (Raleigh, USA), B. R. STRIGANOVA (Moscow, Russia) and M. R. WARBURG (Haifa, Israel).

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The Ninth International Congress of Myriapodology was held from 26-31, July 1993 at the Université Pierre et Marie Curie, PARIS VI and at the Muséum National d'Histoire Naturelle de Paris. A total of 129 members from 37 countries contributed or attended the Congress. Sessions were conducted over a five-day period with a mid-excursion to the Fontainebleau forest, castle and rocky sites. Numerous attendees visited the future Evolutionary Gallery and Micro-Zoo at the National Museum.

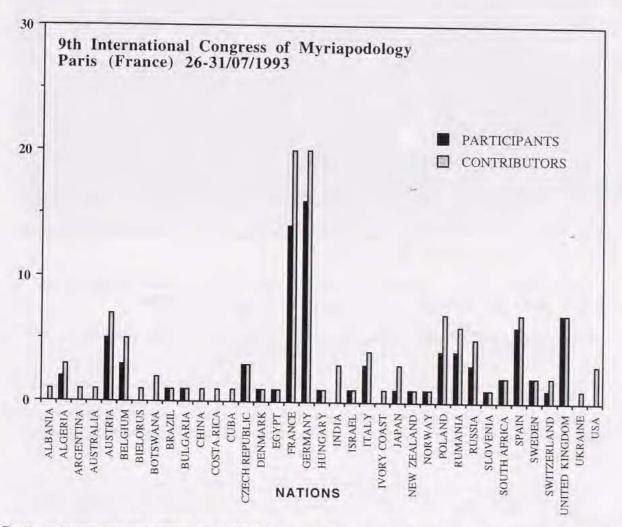


Fig. 2. — International participation to the 9th International Congress of Myriapodology (Paris, France, July, 1993).

There were 97 scientific contributions, by lectures or posters. 14 sessions topics represented the different themes. Seventy-nine papers were accepted for publication, some of them as short-papers or abstracts. This volume is based mainly on communications delivered during the 9th Congress but its main aim is to produce a recent up-to-date review of the biology (s.l.) of millipedes, centipedes, symphylids, pauropods, and onychophorans. It is meant for students of terrestrial arthropods and soil biology; as well as for researchers, biologists, zoologists, working in fields such as phylogeny, systematics, ecology, cell biology and others.

ACKNOWLEDGEMENTS

We gratefully acknowledge the financial support and practical assistance to the Congress provided by the different ministries, scientific institutions, societies and other bodies:

- Ministère des Affaires Etrangères (DDCSTE)
- Ministère de l'Enseignement Supérieur et de la Recherche (ACCES)
- Service le l'Information et de la Communication (UPMC, Paris VI)
- UFR Sciences de la Vie (UPMC, Paris VI)
- Parc Zoologique de Paris, Ménagerie du Jardin des Plantes (MNHN)
- Cellule de Préfiguration de la Galerie de l'Evolution (MNHN)
- Service des Relations Extérieures et Presse (MNHN)
- Service des Cultures (MNHN)
- Société de Biogéographie
- Société de Biospéologie
- Société Française d'Ecologie
- Calypso Log
- CAES du CNRS
- Office National des Forêts (ONF, Centre de Fontainebleau)
- RATP
- Société AGISSON

Special thanks to their efficient help to Esther CLÉMENT, Corinne GENOT, Gilles HORTAULT, Mark JUDSON, Chantal LARROCHE, Marie-Anne MONTANÉ, Dominique MORO, Anne ROUSSEL-VERSINI, Michèle BERTONCINI.

Many thanks to the CAES/CNRS for the exhibition on "French Scientists and the Revolution", and to the SOCIÉTÉ AGISSON for manufacturing the Tee-shirts.

Congratulations and friendly thanks to Jacques REBIÈRE for both the pleasant and serious drawings, and to Valérie CHANSIGAUD for computer assistance.

A special mention must be adressed to the Laboratoire de Biologie & Physiologie des Organismes (UPMC, Prof. Y. TURQUIER), the Laboratoire d'Ecologie Générale (MNHN, Prof. P. BLANDIN) and the Laboratoire de Zoologie/Arthropodes (MNHN, Prof. Y. COINEAU) who provided logistic support during the Congress organization and during the busy exciting period of preparing the present volume.

Myriapodology moves on! We sincerely hope that myriapodologists (s.l.) will meet again numerous and in good spirits in Copenhagen in 1996, for a new fascinating rendez-vous with myriapod biology.

Paris, July 1995 Jean-Jacques GEOFFROY INTRODUCTION 17



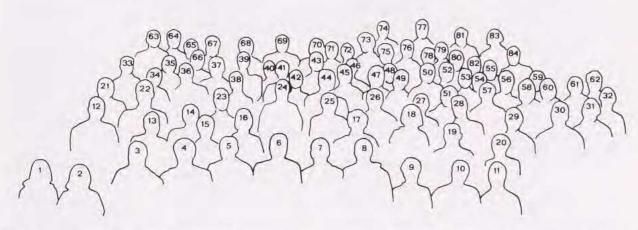


FIG. 3. — During the Ninth International Congress of Myriapodology, Paris, July, 1993: 1. F. Minelli; 2. F. Minelli; 3. S. Negrea; 4. C.-C. Prunescu; 5. T. Ceuca; 6. A. Serra; 7. J.-M. Demange; 8. J.-J. Geoffroy; 9. M. C. Vicente; 10. R. Bouzerna; 11. M.C. Miquel; 12. K. Tajovsky; 13. B. Striganova; 14. J. Wytwer; 15. E. Branquart; 16. M. Kos; 17. P. Johns; 18. O. Abrous-Kherbouche; 19. A. Schileyko; 20. M.-L. Célérier; 21. M. Warburg; 22. Z. Korsos; 23. G. Kania; 24. H. Read; 25. M. Kraus; 26. W. Dunger; 27. K. Voigtländer; 28. N. Bouzerna; 29. D. Mashberg; 30. J. Spelda; 31. M. Lesniewska; 32. Z. Korsos; 33. S.R. Telford; 34. M.P. Minelli; 35. M. Barnett; 36. A. Minelli; 37. S.P. Hopkin; 38. G. Ribarov; 39. E. Krabbe; 40. M. Nguyen Duy-Jacquemin; 41. J.-F. David; 42. R.D. Kime; 43. J.W. de Morais; 44. E. Christian; 45. B. Meidell; 46. F.J. Santibanez; 47. F. Weyda; 48. A. Pedroli-Christen; 49. V. Sustr; 50. G. Pass; 51. B. Condé; 52. H. Borucki; 53. H. Fründ; 54. K. Ishii; 55. O. Kraus; 56. I. Kos; 57. U. Scheller; 58. J. Adis; 59. A. Mette; 60. H. Ruhberg; 61. E. Robson; 62. P. Réveillet; 63. E. Meyer; 64. M. Di Giovanni; 65. M. Zapparoli; 66. L. Nevermann; 67. J.G.E. Lewis; 68. E.H. Eason; 69. S.I. Golovatch; 70. J.-P. Mauriès; 71. J. Rosenberg; 72. B. Rosenberg; 73. W. Dohle; 74. K.P. Zulka; 75. A. Tadler; 76. R.E. Jones; 77. H. Enghoff; 78. M. Descamps; 79. A.D. Barber; 80. P. Compere; 81. W. Jedryczkowski; 82. J.P. Cancela da Fonseca; 83. K. Jedryczkowski; 84. G. Andersson.